Volunteer Firemen

Professional Journal of the Volunteer Firemen's Section of the National Fire Protection Association

Volume 2, Number 11 **BOSTON, MASSACHUSETTS** **November, 1935**

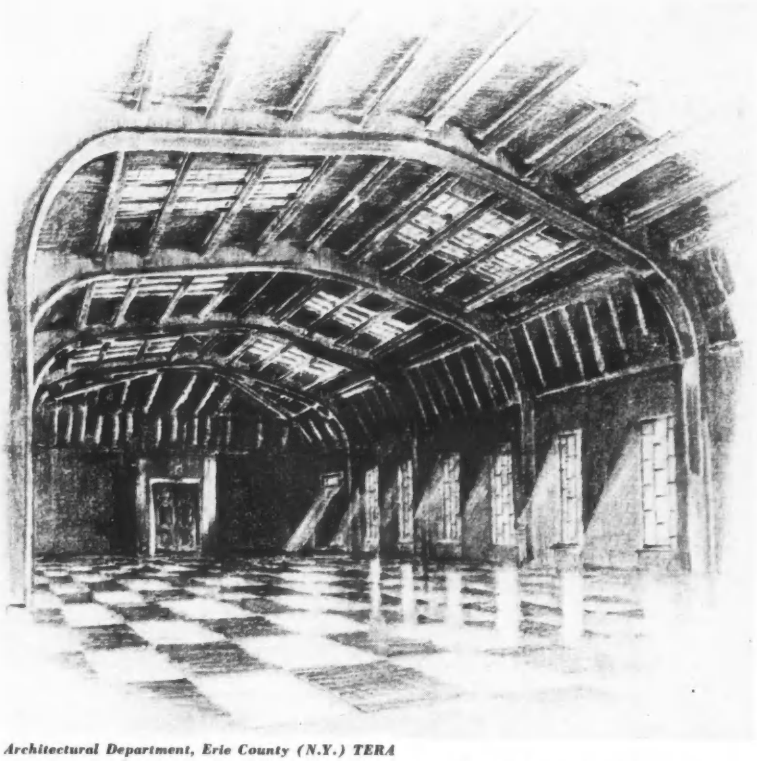
When this High School building at Harrah, Oklahoma, took fire there were 400 pupils in the building. Fire escapes were available from the second floor and because the children had had regular fire drills and instruction in what to do in case of fire they made a safe exit.

13,000,000 School Children

Fire Departments By Promoting Fire Prevention Education Can Assure Children's Safety, Not Only in School, But Also at Home

AN unusual opportunity to fire departments for constructive service to their communities lies in providing for the safety of children from fire, not only in the schools, but also at home. In the cities and towns in the United States and Canada served by volunteer and part-paid fire departments, there are approximately 13,000,000 school children. Numerous departments have already taken steps to see that the children in their community are receiving regular education in fire prevention. The object is to instruct every child to know what to do in case of fire either in school or at home, how to get rid of common fire hazards, and how to cooperate with the local fire department.

A number of cases are on record where children whose clothes have taken fire have saved their lives because firemen had instructed them in what to do in such circumstances. An appreciation of the principles of fire prevention will make them better citizens. Children are the future mem-



Architectural Department, Erie County (N.Y.) TERA

Interior of the imposing Exhibit Building of the Erie County Volunteer Firemen's Association at the Erie County Fair Grounds at Hamburg, New York.

bers of fire departments and the continued success and service rendered by a department is better insured by providing the children with facts about fire. Then too, there is no more effective means of reaching the parents in the homes than through the children.

The most obvious way of reaching the children in a community is by providing fire prevention instruction in the various courses in the schools. While many school officials have recognized the value of this work and have incorporated such instruction, others have not taken any action.

Members of the fire department in every community ought to interest themselves in investigating the situation in their local school system. If the schools are already instructing the children in fire prevention, the interest of the firemen will encourage and stimulate the school authorities. If they are not, the firemen have a good opportunity to recommend a constructive and worth while service that the school system can render.

The following states have recognized the importance of teaching fire prevention, and have passed laws requiring it in all of the schools in the state: California, Iowa, Kentucky, Nebraska, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, West Virginia and Wisconsin. Fire departments should make sure that the local school system is living up to the provisions of such laws where they apply.

The New Jersey law which was adopted in 1920 is short and effective and may be taken as a model. It is reproduced herewith in the thought that it might be used in states not now having such legislation and that the fire departments should endorse such legislation.

A number of other states have carried on most effective work. In Maryland the State Fire Marshal Department has placed textbooks in the hands of every teacher, and sees to it that instruction in fire prevention is given once a week. The fire marshal of Illinois has prepared sets of inspection blanks for school children, one for use in cities and one for use in rural districts.

Special courses to teach fire prevention are not necessary. Appropriate subject matter can be added to existing courses, particularly history and civics.

An interesting and satisfactory procedure has been worked out in Texas through the State Fire Insurance Department in cooperation with the State Department of Education. A pamphlet which provides a list of requirements and suggested outline for work in the various grades is furnished to every teacher. A competent woman employee of the Insurance Department spends practically her entire time in promoting fire prevention education in the schools.

In Iowa the State Fire Marshal provides posters and other educational material to every school in the state,

New Jersey Law on Fire Prevention Education

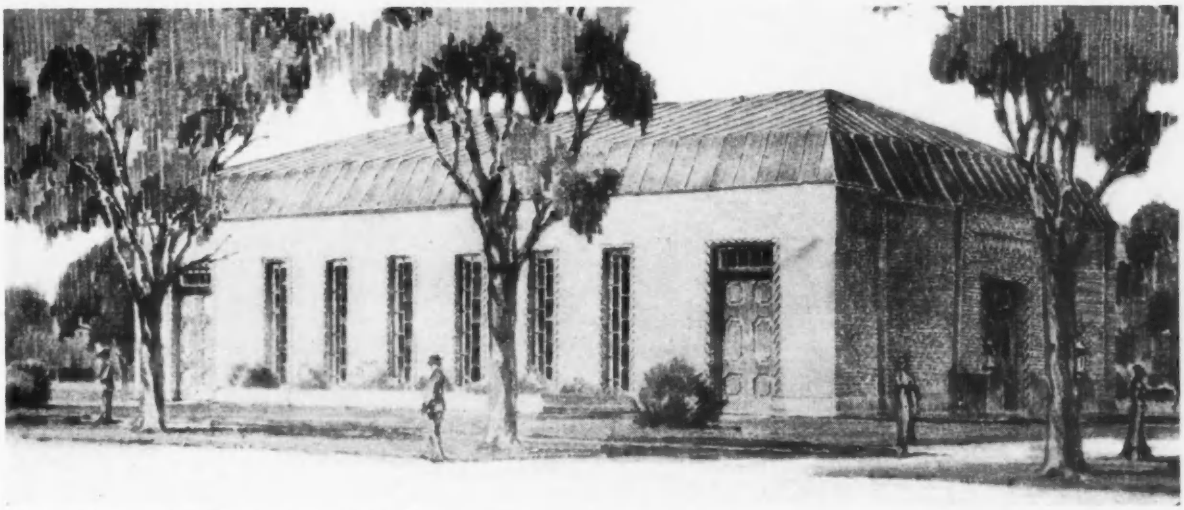
"AN ACT to compel instruction in the public, private and parochial schools of this state in fire prevention and safeguarding lives and property against loss by fire.

"1. The Commissioner of Banking and Insurance and the Commissioner of Education are hereby empowered and directed jointly to provide a course of study in fire prevention for use in the public, private, and parochial schools of this state dealing with the protection of lives and property against loss or damage as a result of preventable fire.

"2. It shall be the duty of the board of education, school directors, trustees or other committees or persons having control of the private or parochial schools in each township, village, borough or city or school district thereof to arrange for said course of study in fire prevention and to compel its use in each school under its or their control or direction.

"3. On and after September 1, 1920, it shall be the duty of each teacher in any public, private or parochial school of the State of New Jersey to devote not less than one hour in each month, during which such school is in session, to the instruction of the pupils thereof in said course of study in fire prevention comprising the ways and means of preventing loss and damage to lives and property through preventable fires.

"4. This act shall take effect immediately."



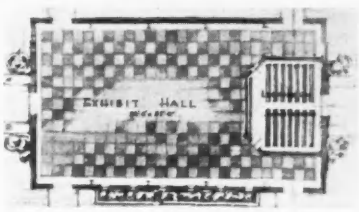
Architectural Department, Erie County (N.Y.) TERA

This building will permanently house the fire prevention exhibits of the Erie County Volunteer Firemen's Association at the Erie County Fair Grounds at Hamburg, New York. It is being erected by the local Emergency Relief Administration under the direction of the County Board of Supervisors at a cost of $30,000.

and the state Superintendent of Public Instruction sent out special bulletins to all teachers calling their attention to the value of fire prevention education.

In recent years a new plan for reaching children with fire prevention education has been developed through the 4-H Clubs. There are approximately 70,000 of these clubs in the rural sections of the United States with a membership of nearly 1,000,000 boys and girls.

The State of Oregon has led in the development of a program of farm fire prevention through the 4-H Clubs. The campaign was initiated in 1932 by the State Fire Marshal Department in cooperation with the Extension Service of the State College and the State 4-H Club organization. The fire marshal offered a gold medal and pin to the boy and girl showing the greatest achievement in the elimination of fire hazards about the home, and a scholarship in the state college to the boy and girl who obtained the best record in the state. Thousands of boys and girls enrolled with a consequent very satisfactory reduction in farm fire losses throughout the state. The State of Nebraska has inaugurated a similar program and other states are contemplating such action.



Floor plan of Exhibit Building

New Exhibit Building for Erie County Volunteers

A NEW building dedicated to the work of fire prevention, believed to be the only one of its kind in the world, is being built at Hamburg, New York. The purpose of this structure is to exhibit fire hazard and fire prevention displays the year round and especially at the annual Erie County Fair. The building, which will cost $30,000, is rapidly nearing completion under the direction of the local Emergency Relief Bureau and the Board of Supervisors of Erie County.

Raymond J. Kirsch, Fire Marshal of the Volunteer Fire Department, Kenmore, New York, is responsible for decorating the interior and for selecting and arranging the exhibits.

This building is largely the result of the pioneer activities in fire prevention of George B. Abbott of the Hamburg Volunteer Fire Department (Member N.F.P.A.). His suggestion made three years ago for setting aside one day of the Fair for volunteer firemen was adopted by Erie County Agricultural Society, and the Erie County Volunteer Firemen's Association consisting of one hundred volunteer fire companies. Firemen's Day has become one of the best days of the Fair and has contributed largely toward its financial success.

Over 30,000 people have visited the fire prevention exhibits at the Fair each of the past three years. With the new building ready in 1936, there will be greater opportunities for informing a larger number of people in how to reduce the loss of life and property by fire in the home and shop.

The building is 60 feet wide, 100 feet long, and 24 feet high. This space will permit the installation of large size exhibits since there are no partitions or pillars in the display room. The doors are such as to permit the entrance of any type of fire apparatus.

A lecture and motion picture room 24 feet by 60 feet is also provided. The separate projection room for the motion picture machine is in itself a fire prevention exhibit.

Have Chiefs Got "What It Takes"?

Check Up Is Made by 82 of Them in Oklahoma and Kansas Conferences at Which Fire Chief's Duties are Analysed

ANALYSING the fire chief's duties and responsibilities has been the purpose of a series of conferences held in Oklahoma and Kansas.

Checking up on "what it takes" to make a first-rate chief of a fire department, 82 fire chiefs themselves have taken part in the conferences, which were a part of the plan for firemen training sponsored by the State of Oklahoma. L. K. Covelle, State Supervisor of Industrial Education, and W. Fred Heisler, Teacher-Trainer, were the leaders of the conferences which were held in nine cities.

The participants, all active fire chiefs, represented cities from small to moderate in size and included a majority of chiefs of volunteer and part-paid fire departments. No major phase of the fire chief's job escaped attention and they did not hesitate to speak right out in meeting.

The responsibilities of a fire chief which were analysed in detail were: organization of the department, the chief's leadership, fire extinguishment, fire prevention, inspection, safety of lives, arson investigation, selection and development of men, training program, interesting citizens in volunteer firemanship, securing cooperation with men, selling the department to the public, and maintaining friendly relations with the surrounding communities.

CONCLUSIONS of the series of conferences were most enlightening. Summarized, they follow:

1. The fire chief is the *pivot man* of the fire department. As goes the chief, so will go the department.

2. The fire chief is truly a foreman of his department and as such must assume the following responsibilities:
   (*a*) Management of the department.
   (*b*) Supervision of all work done.
   (*c*) Instruction of men toward efficient firemanship.

Chiefs Find Magazines Promote Members' Interest

How to keep members of volunteer and part-paid fire departments interested and on their toes was one of the problems of the fire chief discussed at the Oklahoma-Kansas conferences described in the accompanying article. Providing readable magazines for the members was emphasized as a feature which does this. Officers of companies and departments now members of the Volunteer Firemen's Section of the N.F.P.A. who now receive the magazine VOLUNTEER FIREMEN write us many letters telling how much it does to make the fire department's work more attractive. An application blank filled out at the next meeting of the company will make the magazine regularly available to readers not now members.

3. Certain responsibilities of the fire chief that are supervisory or instructional may be delegated to officers of the department, but the chief must assume all managerial responsibilities.

4. Firemanship has so changed during the past few years that the fireman of a few years ago is inefficient for the job of today unless he be trained in improved methods of firemanship. The chief is responsible for this training.

5. Certain qualities of leadership are absolutely necessary to obtain efficiency in any fire department. The chief, being the leader must possess these qualities or surrender the job to one who has them.

6. Specific training is one way out for the inefficient fire department, provided that the men on the department have been well selected.

7. An organized training program has been worked out by the wide-awake firemen of the state and is available to all who care to avail themselves of its advantages.

8. The success of the training program depends upon the chief. He can make or break it as he chooses, consequently he first must be interested in training.

9. Each and every fire department has a place for an instructor. He may or may not be the chief but the chief is responsible for the instruction.

10. An efficient way to interest all members of the department in better service is to analyse their jobs. A thorough analysis will locate weak points, amplify strong ones, and will determine and allocate responsibilities.

11. Previous formal education is not the important thing in training firemen. Experience and attitude are worth much more. Training may be begun on what the fireman has gained through the years and proceed toward efficiency in a step-by-step manner. Men with little formal education or schooling may learn as efficiently, and sometimes more so, than those with less experience.

12. As a result of all this, every chief who sees the need of going ahead and who has the desire to go ahead should be encouraged. The sky is the limit for him and his department because he will choose and train for efficiency. A chief with such aspirations will remove himself from politics. He will be counted an absolute necessity for service, rather than his office being regarded as a political plum, and so will gain and hold the confidence of the public and of his immediate superiors. In the words of one fire chief who attended this conference, "The fire fighting service is the greatest in the world for the man who really wants to serve." The protection of life and property demands the best — physically, mentally, and spiritually.

"The Bad Master"

New Fire Prevention Film Is Being Made Available to Fire Departments for Showings Before Local Public Gatherings

THE limited supply of motion picture films suitable for display to audiences for general educational purposes in fire prevention, is likely to make "The Bad Master", a new film, find much useful service in the hands of local fire prevention committees, fire departments and other civic agencies who are trying to teach the lesson of care with fire.

"The Bad Master" has been produced by the Automobile Insurance Company and the Standard Fire Insurance Company, affiliates of the Aetna Life Insurance Company of Hartford, Conn., and is an important addition to the educational films, preparation of which is being promoted by the N.F.P.A. Committee on Visual Education. It is a one-reel film taking eleven minutes to show and is now available for display at public gatherings and fire prevention programs. Fire departments can secure it for showings in their schools, theatres, clubs and before other public gatherings.

FIRE IS A GOOD SERVANT
BUT A Bad Master
BURNING PAPERS OR RUBBISH IN FIREPLACES AND FURNACES IS A DANGEROUS AND COSTLY PRACTICE
A RUBBISH BURNER SHOULD ALWAYS BE USED
DO YOU KNOW THAT
LAST YEAR THE TOTAL FIRE LOSS IN THE UNITED STATES AMOUNTED TO
$275,652,060

Courtesy *The Aetna-izer*

A fire prevention display developing the thought of the new motion picture film, "The Bad Master". The display depicts the danger from sparks from chimneys on wooden shingle roofs.

The film shows a typical American family committing mistakes that result in fire losses.

This film is available in 35 mm. and in 16 mm. stock, either for sound or silent projection. Reels will be loaned to fire departments or other organizations interested in fire prevention on written request to the Publicity Department of the Automobile Insurance Company or the Standard Fire Insurance Company at Hartford, Connecticut. Requests should indicate the size and whether sound or silent film is wanted. It is suggested that some time in advance of the dates of showing, the arrangements be made to secure it. The sponsors of the film will, however, make every effort to make it available at the time most convenient for local use.

A list of other motion picture films on fire prevention and protection which are available from various sources has been prepared by the N.F.P.A. Committee on Visual Education. Copies of this pamphlet will be sent to readers on request to the National Fire Protection Association, 60 Batterymarch Street, Boston, Mass.

Courtesy *The Aetna-izer*

A scene from the new film, "The Bad Master".

The Problem of Partition Fires

Protecting Partitions and Woodwork from Heating Appliances And Fighting Partition Fires are Discussion Topics Answered

TWO angles of the problem presented by partition fires are given in the answers to the discussion questions of last month. Both subjects are of immense practical importance in fire department work.

The material on fighting partition fires has been taken from lecture material prepared by Deputy Chief Horace W. Hutchins, of the Somerville, Mass., Fire Department, in connection with the firemen's training courses given by the Massachusetts State Department of Education. The material dealing with the protection of partitions is recommendations of the N.F.P.A. Committee on Building Construction.

23

Q. How would you locate and extinguish a fire that is concealed in a partition of a dwelling in which fire stopping has not been provided?

A. Feel along the walls with the hands for indications of heat or fire behind them, open up the partition, and use hose streams. If the fire has been burning for some time, the wallpaper may be discolored or the paint may be blistered. By first determining the location of the fire in the building below the floor being searched, a better idea will be had as to where the fire may be expected to extend vertically. Fire always tries to travel upward, and in buildings not provided with fire stopping it is wise to look in the attic to see if fire has extended that far.

Before opening up a partition, windows should be opened to provide ample ventilation before smoke conditions drive the firemen out of the room. Endangered contents of the room may either be removed or protected with salvage covers.

When the fire in the partition is located and a hose line is ready for use, the partition should be opened near the baseboard with an axe, plaster hook, or other tool. The nozzle should be inserted and water played upwards to cover the entire area of the fire. This applies where the fire is burning only in one part of the partition such as between two studdings. If the fire has risen at several points, the partition must be opened at various points in order to reach all the fire.

24

Q. How should combustible partitions, floors, and woodwork in dwellings be protected against possible excessive heat from stoves and ranges?

A. By adequate clearances between the source of heat and the combustible material, or by proper non-combustible material placed between them.

A drill tower constructed at small expense from an old windmill frame by the fire department of Fairhaven, Mass.

The way such protection against excessive heat works is that proper air circulation is provided which carries off the heat before it reaches combustible material.

Stoves and ranges with an enclosed base should be set on hollow or porous masonry arches or hearths not less than 6 in. thick and extending not less than 6 in. beyond the base on all sides. These hearths may either be recessed in the floor construction and flush with the floor surface, or built on wooden floors that have first been covered with sheet metal or 1/8-in. asbestos board. Stoves supported by rigid legs, and which have at least a 4-in. clearance under the ash pan may set on wood floors when the flooring is protected by heavy sheet metal extending 12 in. or more beyond the front and 6 in. or more beyond the sides and back of the stove.

When a stove is less than 18 in. and more than 9 in. from any wood lath and plaster partition, the partition should be protected by a sheet metal shield set out at least 1 in. from the partition. This shield should extend at least 3 ft. above the top and 1 ft. beyond the sides of the stove or range. If the stove is nearer than 9 in. to wood lath and plaster, the studding should be cut away and framed to a height of not less than 3 ft. above the top and 1 ft. from the side of the heating device. The space from floor to header should be filled in with brick or other non-combustible material laid in cement mortar, and the surface should be plastered flush with the partition.

Where partitions are made of metal lath and plaster instead of wood lath and plaster, heating devices may generally be placed about one-third of the above distances nearer to the partitions. No stove or range should be placed nearer than 3 ft. to any exposed woodwork.

Problem Questions
FOR NOVEMBER

Suggested for discussion at company and department meetings this month

25

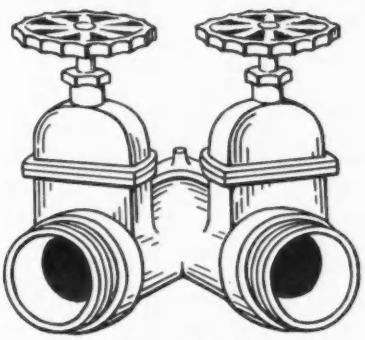
How often should the radiator of motor fire apparatus be flushed out, and how should it be done?

26

How is the condition of charge of lead-plate-acid storage batteries determined? How low may cells be allowed to test and still permit the starting motor to crank the engine?

Watch for the answers in the next issue of VOLUNTEER FIREMEN

Fire Tools



Gated Wye Connection

DOUBLE hydrant gates or two-way gate wye connections are used to divide a large hose line into two smaller lines or to get two streams from one opening on a hydrant. The gate valves make it possible to control either of the two lines thus obtained without making it necessary to shut down the other line or the hydrant.

The single inlet connection on this device is provided with female threads, and the two Y connections have male threads. They are also made with male threads on the inlet and female threads on the two Y connections to meet other requirements such as to siamese two lines into one.

These connections are made in various sizes and with different types of handles or wheels. Some have a type of valve that is opened or closed by a quarter turn of the handle.

Coupling Hose and Putting on Nozzles

By Bob Criswell
Fire Department Instructor
Ohio Inspection Bureau

COUPLING hose is generally a one-man job. Much time can be saved by having one man extend lines or make replacements, especially where companies are short handed.

The operator stands somewhat stooped and with his feet spread apart as shown in the drawing. Hose should not be straddled when it is being coupled together. The female end is brought over the right thigh, and the swivel is worked with the right hand while holding the male end in the left hand. By using this method, the man is pushed clear of the hose if it should be jerked. A somewhat similar method may be used to connect nozzles to hose where the ground is covered with mud or snow.

Ordinarily a nozzle may be connected by stepping on the hose close to the male coupling, thus tilting it upward. When it does not tilt enough, the other foot may be tucked under the coupling. The operator then leans over and screws on the nozzle. This method is also sometimes used for coupling hose.

When two men perform these operations, one holds the male coupling tight against his body near one thigh. The other man screws on the swivel end or nozzle.

Couplings and nozzles should be carefully handled. A check should always be made to be sure gaskets are in place. Couplings should be made up only hand tight.

□□□□□

Drill Tower from Windmill Built by Volunteers

A DRILL tower 40 ft. high made out of an old windmill has been erected by the Volunteer Fire Department in Fairhaven, Mass. The windmill was purchased for $10, dismantled for transportation, and

erected again on a vacant lot across the street from fire headquarters.

Inside the base of the tower members of the department built a smoke house which is used to train men in the proper use of smoke masks and to get them accustomed to working in the presence of smoke. An opening in the roof of the house is used to demonstrate the principles of ventilation.

Although this tower has some disadvantages over the ordinary drill tower that has perpendicular sides, more windows, and a stairway, it is serving the town very effectively and at small cost in providing training for the volunteers. There are very few buildings in the town over three stories in height.

This department consists of four paid men and 52 call men. Twelve of the men are graduates of a regional State School for firemen. Drill work is in charge of an experienced volunteer drillmaster.

The Fairhaven department is one of those which uses discussion questions in VOLUNTEER FIREMEN in their regular monthly drill sessions. A model building is also used to illustrate problems involving the spread of fire. Members of the department are required to be familiar with the interior arrangement of all important buildings in the community.

Volunteer Firemen

Professional Journal of the Volunteer Firemen's Section of the National Fire Protection Association

Published by the National Fire Protection Association, a voluntary non-profit organization, 60 Batterymarch Street, Boston, Massachusetts, U.S.A. (Copyright 1935.)

Volume 2 **November, 1935** Number 11

Heating Plants and Chimneys This is the month of the year when fires caused by defective or improperly maintained heating devices and chimneys come toward the top of the list of fire calls. During the past couple of months chiefs of alert volunteer fire departments have been turning their attention to inspecting heating equipment, chimneys, and dangerous roofs in their communities and warning the citizens to eliminate such common fire hazards before cold weather sets in. Defective chimneys and flues are responsible for more home fires than any one other cause.

In addition to promoting safe construction of heating plants and chimneys, fire chiefs and fire department inspectors need to remind people that combustible material should be kept a safe distance from excessive heat, and that furnaces and chimneys should be thoroughly cleaned at least once a year. Sparks on wooden shingle roofs still cause a large number of fires.

An Interchange of Experience One policy of the editors of VOLUNTEER FIREMEN is to encourage contribution of articles for publication. Members and readers are invited to send in descriptions and pictures of special fire tools or apparatus they have made and used for various purposes, how they fought a bad fire, how they eliminate certain fire hazards, or data on any other subject that would interest volunteers throughout the country.

Contributions already received and the vast amount of technical and educational material in the N.F.P.A. library is adequate to fill issues of VOLUNTEER FIREMEN months in advance. The first point in the program of the Volunteer Firemen's Section is that the organization will serve to interchange the experiences of volunteer fire departments. Usable contributions from firemen make this possible and will receive preferential attention.

We cannot pay for articles because this is a professional and technical journal not published for profit. Neither can we always use immediately all the material sent in, but each contribution is given careful consideration.

Value of Fire Alarm System Demonstrated On March 27, Lenoir, No. Carolina, a city of 7000 people, placed in operation a fire alarm system of 93 boxes. During its first four months of operation 100 per cent of the alarms received by the fire department were box alarms, and the total fire loss was $581. The average loss for the corresponding periods of the three years previous was $61,162. The value of property at risk for the period this year was reported to be over $1,250,000, and the average value of property at risk for the same period for the three previous years was $160,000. Local fire authorities submit these figures to demonstrate the value of a fast, accurate, and dependable alarm system which enables firemen to get on the job more quickly and keep losses low.

A. Y. Cottrell is Superintendent of Alarms of the Lenoir Fire Department. He is very proud of the loss record and the success in securing early public cooperation in the use of the alarm system.

9,000 Firemen

MEMBERSHIP in the Volunteer Firemen's Section reaches a new high this month of over nine thousand men, showing the remarkable growth of this national organization for volunteer and part-paid firemen in the United States and Canada. Fire departments find the publications issued and service rendered as a result of membership of great practical value.

Since the last issue 29 departments with 630 men have renewed their memberships, and the 17 departments listed below with 349 men sent in their applications for the first time. The total membership is now 9,009 men.

Grand Forks Volunteer Fire Department, Grand Forks, British Columbia.

Belmont Volunteer Fire Department, Inc., Belmont, California.

Quincy Volunteer Fire Department, Quincy, California.

Rio Vista Fire Department, Rio Vista, California.

Roxbury Fire Department, Roxbury, Connecticut.

Illiopolis Volunteer Fire Company, Illiopolis, Illinois.

Westmont Fire Department, Westmont, Illinois.

Webster City Fire Department, Webster City, Iowa.

Rangeley Fire Department, Rangeley, Maine.

Excelsior Hook & Ladder Company No. 1, Freeport Fire Department, Freeport, New York.

Fountain Fire Company No. 1, Hamilton, New York.

Glen Ullin Volunteer Fire Department, Glen Ullin, North Dakota.

Dominion Atlantic Railway Company, Fire Brigade, Kentville, Nova Scotia.

Rescue Fire Companies, Niagara Falls, Ontario.

West Central Berks District, Zone 4, West Lawn, Pennsylvania.

Bonesteel Fire Department, Bonesteel, South Dakota.

Barron Fire Department, Barron, Wisconsin.

MEMBERSHIP PLAN

Volunteer Firemen's Section National Fire Protection Association

WHERE twenty or more firemen in a volunteer company or department affiliate with the Volunteer Firemen's Section the cost is 50 cents a year *per man*. Each fireman will receive one copy of VOLUNTEER FIREMEN, the monthly journal of the Volunteer Firemen's Section, mailed regularly to his home address. The company or department automatically becomes a member of the National Fire Protection Association and is entitled to full privileges of membership. All the literature regularly issued to N.F.P.A. members is mailed to headquarters of the company or department.

Membership may be applied for by one member of the company or department collecting 50 cents for each of the 20 or more members and making a single remittance for the group, or the company or department may take a membership for its men and make a single remittance from the company or department treasury.

Companies With Less Than Twenty Members

Because of the large amount of material mailed to members, not less than $10.00 can be accepted from any company or department for membership dues. In the case of companies or departments with less than twenty men this means that the cost divided among them will be slightly higher per man. Of course, some such companies or departments may prefer to make a single remittance of $10.00 from the company or department treasury. In other cases a few interested citizens, not members of the company or department, may be glad to contribute 50 cents apiece to make up the required minimum of twenty, so that the members may secure the rate of 50 cents per man.

These companies or departments have full privileges of N.F.P.A. membership as above, and each member receives the monthly magazine, VOLUNTEER FIREMEN, at his home.

The one tank of gasoline which did not burn in the Colton, Calif., bulk station fire was of standard steel construction. Hose streams kept its steel supports cool and prevented its collapse.

Lessons of Gasoline Station Fire

WHEN three adjoining small bulk distributing stations for gasoline and oil burned recently in Colton, California, there wasn't much the fire department could do but protect exposures and let the rest of the stations burn. The fire emphasizes the importance of the construction and arrangement of tanks and equipment at such stations, which are a necessity even in small communities, in accordance with good modern practice as outlined in the N.F.P.A. Suggested Ordinance for the Storage and Handling of Flammable Liquids.

The fire burned to death a station attendant and caused damage estimated at $40,000. It started while a tank truck was filling an above ground tank. The tank was one of corrugated iron with soldered seams set on a wooden foundation. This and others like it quickly collapsed and allowed the gasoline to spread.

This fire demonstrates anew that storage tanks for gasoline and oil at bulk stations and elsewhere, should be properly designed and constructed of riveted or welded construction, gas tight and properly vented, and set upon foundations which will not burn or collapse in a fire. An electric pump and switch under the tank which first burned was of a type not suitable for locations where flammable vapors are present and may have been the source of ignition in this case.

This fire may well be used as an example to secure correction of existing dangerous installations.

Corrugated iron tanks with soldered seams, a type unsuitable for gasoline storage, and set on wood foundations, which allowed the tanks to collapse in the fire were factors responsible for the loss of one man's life and damage of $40,000.

Shuredry
SALVAGE COVERS
Reduce WATER DAMAGE & INSURANCE RATES
SHUREDRY is the cover that fire chiefs all over the country have endorsed for superior service.
Made of our special process chemically treated canvas they resist both heat and cold. SHUREDRY covers will not crack or split on your storage shelves — easy to handle — give better service.
Address our plant nearest you for full information and prices.
Fulton Bag & Cotton Mills
Manufacturers Since 1870
ATLANTA ST. LOUIS DALLAS
MINNEAPOLIS BROOKLYN NEW ORLEANS KANSAS CITY, MO.

Can You Use $10.00?

If You Can, Submit Your Story in Pyrene Letter Contest—Cash Winners This Month

FIRST PRIZE—$10.00

P. B. GOFF, *Chief*,
Volunteer Fire Dept., Minatare, Neb.

Less Damage by Using Extinguisher

"Our department was called at 8:00 P.M. to a farm house fire one and one-half miles outside the city limits. Upon arrival of the truck, firemen could not enter the building because of thick and suffocating sulphur fumes. The fire was caused by fumigating with sulphur when the sulphur container boiled over. The owner was at a neighbor's house while the fumigation was in progress, and the fire had been burning some time before he discovered that something was wrong.

"Since there was no water to supply the pumper, ventilating the building was not practicable. Taking a 2-gallon carbon tetrachloride extinguisher from the truck we emptied its contents into the room through a small hole broken in a window pane. The fire soon went out.

"The next day I went out to inspect the damage. The fire had eaten through the floor and walls. There were no fire stops in the walls, and the air spaces between studding had made good 'chimneys' to spread the fire."

SECOND PRIZE—$3.00

P. G. GEARING, *Captain*,
Fire Department, Sebring, Fla.

Unusual Use of Soda-Acid Extinguishers

"Every fireman that has had any experience at all knows that it is about the worst procedure possible to try to combat a gasoline fire with soda-acid extinguishers, but here is a case where our department did that very thing.

"About ten o'clock one morning as I was returning from up town, I saw my partner run out of our furniture store and into the pressing shop next door. He had a 2½-gallon soda-acid extinguisher in his hand and from his excited condition I knew that there was a fire. I ran up to the hall of the four apartments above the shop, grabbed an extinguisher, and ran to help my partner.

"The entire work-room was a mass of flames, and I had visions of my furniture store going up in smoke. My partner and I were members of the fire department. Someone called the department, and then I sent for all the 2½-gallon soda-acid extinguishers in my store and in the apartments. We literally washed the burning gasoline out a back door, and several people beat on the numerous spots of fire until we had it just about out when the department arrived.

"Checking up afterward we found we had used seven extinguishers and don't let anyone tell you that soda-acid extinguishers won't put out gasoline fires. But be sure you have PLENTY of 'em!"

THIRD PRIZE—$2.00

FRANK E. COBLEIGH, *Deputy Chief*,
Fire Department, Tyngsboro, Mass.

Big Warehouse Saved

"I run a production machine in the largest sash and door factory in New England. One morning at about 9:30 o'clock I smelled something burning. I stopped my machine and looked around for a hot motor. I discovered smoke coming from under the door of the warehouse close by which houses a million or more feet of cut sash stock.

"Taking a 2½-gallon soda-acid extinguisher I went into the warehouse and found that the motor which operates an elevator was burning. The roof of the warehouse had caught fire and was burning briskly. I pulled the electric switch of the motor and put out both fires with the extinguisher. In another five or ten minutes the building would have been doomed, with a great loss of property and loss of employment."

HONORABLE MENTION

H. V. CROCKER,
Fire Department, Big Spring, Texas

W. S. ELLIS, *Engineer*,
Volunteer Fire Dept., Sanger, Calif.

RICHARD WILSON, *1st Asst. Chief*,
Volunteer Fire Dept., Texas City, Texas

YOU are missing a real opportunity for a cash prize if you are not submitting your fire fighting stories in this contest. Just put on paper how an approved fire extinguisher of any make has been used to save life or property and get in line for next month's awards offered in this contest cooperatively by the Pyrene Manufacturing Company of Newark, N. J., and VOLUNTEER FIREMEN.

The contest will be judged by the engineering staff of the National Fire Protection Association and the editors of VOLUNTEER FIREMEN.

Don't forget to give the kind and size of the hand fire extinguisher used. A number of letters have just missed awards that way.

Rules . . .

PYRENE PRIZE LETTER CONTEST

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.
2. Letters are to describe actual experiences where any approved fire extinguisher of any make has saved lives or property.
3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.
4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experiences.
5. Only one letter may be submitted each month.
6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.
7. Letters received after the 15th of the month will be judged in following month's competition.
8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.
9. Address contest letter to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch Street, Boston, Mass.

Marvelous Stamina! Incomparable Efficiency!

CHAMPION Fire Apparatus

$1815 **400-650 G.P.M.**
Price with All Basic Equipment Including V-8 Chassis and 300 Gallon Booster Storage Tank. No hose, ladders or other accessories.

BUILT INTO IT ARE MANY YEARS OF FAITHFUL SERVICE

BUILT TO YOUR SPECIFICATIONS

Darley engineers will give you any combination of equipment you desire. Fire fighting trucks built to carry as much as 500 gallons of water in booster storage tank. Designed and built to your specifications on any chassis you select, such as Ford V-8, Chevrolet, Dodge, International, Diamond T, etc. Equipped with the famous Champion Direct Front Drive Centrifugal Fire Pump which has passed all Underwriters tests and is available in three models—300 GPM capacity, 400 GPM capacity and 500 GPM capacity. Or with Champion Midship Booster Pumps, either 75 GPM or 200 GPM capacity.

Champion Direct Front Drive Centrifugal Pumps sold separately for mounting on any chassis or Fire Apparatus at low prices.

ENGINEERED AND BUILT BEST

Champions are engineered for strength and represent more than just new eye-appeal. They are the first apparatus to eliminate the burden of unnecessary weight—weight that costs money to buy and more money to maintain and operate—weight that is as unnecessary in a modern fire apparatus as it is in a modern train or motor car. Champions are lighter, higher powered, faster and more dependable than anything else we know of.

The performance of this new Champion is further evidence that year after year Darley Engineers produce a better Fire Engine. The Champion is not a fine pump—alone; or a scientifically designed Fire Apparatus—alone; or any other single excellence but a fusion of them all. It is a Fire Engine which will serve your community faithfully, safely and with distinction, whenever the alarm comes in.

W. S. Darley & Co., by its high order of engineering and scientific design, was FIRST TO EVER BUILD A DIRECT DRIVE FIRE PUMP to meet all Underwriter requirements for a 500 Gallon Capacity Fire Pump. No other Fire Pump designer has ever done this. Only Darley has accomplished this engineering feat—an Underwriters' rated pump, driven direct without gears. Eventually others may duplicate this accomplishment but Darley is recognized as the pioneer of the Direct Drive No Gear Fire Pump with years of engineering research and a vast practical knowledge based on experience.

Our Chief Engineer is a pioneer in the design and development of High Pressure Centrifugal Fire Pumps. He is today recognized as the foremost authority in the centrifugal fire pump field. In back of the new Super Champion 500-750 is eleven years of specialization in centrifugal fire pump design.

DARLEY today, with amplified capital, NO bank loans, NO burdensome salesmen, NO excessive plant valuations, is operating on the thriftiest basis possible!

That is one reason why you can get Champion Apparatus at a saving of much money. And you get the benefit of all that Darley has learned in 27 years of uncompromising public service when you invest your funds in a new Champion Fire Apparatus.

W. S. DARLEY & CO.

Built on Character and Fair Dealing Since 1908

2810 Washington Blvd. **Chicago, U.S.A.**

Write for our New 84 Page Fire Equipment Catalog giving you all particulars of the newest and best in Fire Apparatus, Fire Pumps, Fire Dept. Equipment. Darley has always meant dependable service and honest value. More and more Darley Equipment becomes the symbol of progress and the newest, latest developments in Fire Engineering. Darley goes forward with the needs of Fire Depts.

The N.F.P.A. Publications Service

Selected Publications Useful for Reference or for the Company or Department Library

Order by number. Except where a price is noted, single copies are sent free on request.

A-7. **Safeguarding of Dry Cleaning and Dry Dyeing Plants.**

A-10. **National Electrical Code.** Rules for safe electric wiring.

A-15. **First Aid Fire Appliances.** How all types of fire extinguishers work, and regulations for their installation, maintenance and use.

A-27. **Oil Burning Equipments.** Safe installation rules for burners and storage of fuel.

A-107. **Fire Exit Drills and Alarm Systems.** 10c.

A-110. **Protection Against Lightning.** 10c.

A-115. **Equipment and Organization of Rural Fire Departments.** 10c.

A-119. **Suggestions for the Elimination and Protection of Structural Defects in Buildings.** 15c.

A-120. **A Table of Common Hazardous Chemicals.** 15c.

B-4. **Suggested Ordinance on Flammable Liquids.** 15c.

C-1. **Field Practice.** An inspection manual. 206 pages. Pocket size, 4½ x 6¾ inches. $1.50.

C-7. **Prevention and Control of Farm Fires.** A Handbook. 167 pages. 85c.

D-15. **Fire Department Drill Towers.** 15c.

D-16. **Fire Department Pumpers, Their Effective Use and Co-ordination with Private Fire Protection Facilities, by Frank R. Daniel.** 10c.

D-19. **Fire Prevention Week Handbook.** Suggestions for fire prevention campaigns. 48 pages. 15c.

A complete list of available N.F.P.A. publications will be sent free on request to

EXECUTIVE OFFICE

NATIONAL FIRE PROTECTION ASSOCIATION

(INTERNATIONAL)

60 Batterymarch St., Boston, Mass., U.S.A.

BARTON
Centrifugal FIRE PUMPS

A Size for Every Need and Pocketbook

ALL Front-Mounted for Convenience and ECONOMY

DO YOUR TALKING—*RIGHT NOW*

. . . If You Want Some of that 1936 Tax Money for New and Better Fire-Fighting Equipment

Ornamental lights on Main Street—new gadgets for the high school gym . . . certainly such things are fine, if they can be had WITHOUT sacrificing the efficiency of the Fire Department. Don't set back and see ALL the money go for luxuries, if YOU haven't the necessary apparatus to protect human lives and property.

Sometimes it pays to "talk turkey," Mr. Chief. And possibly NOW is one of those times. NOW—before that 1936 tax money is allocated for less important items—make it plain to your community the vital need for new and better fire-fighting equipment—MAKE IT PLAIN THE LONG CHANCE YOUR PEOPLE TAKE WITHOUT A MODERN, HIGH-PRESSURE FIRE PUMP.

Perhaps our literature will help you demonstrate to your council or county board what a marvelous fire pump the Barton really is . . . how inexpensive . . . how our SIMPLIFIED FRONT-MOUNTING SAVES PLENTY . . . how a Barton Pump can be front-mounted on practically any make of truck, new model or one now in service—completely installed for a few dollars.

American Steam Pump Company . . Battle Creek, Michigan

MILLION DOLLAR MANUFACTURER BUILDING PUMPS AND PUMPS ONLY SINCE 1873

MAIL THIS COUPON FOR FREE AND COMPLETE INFORMATION

Without obligation, send me your literature on Barton Fire Pumps. We may be interested in a Barton Pump in the price class checked below.

☐ Barton Pumps Under $200 (Rotary Type)

☐ Barton Centrifugal Pumps $315 to $600 (Underwriters' Tested and Direct Drive)

☐ Barton Centrifugal Pumps $500 and up (Underwriters' Tested and Geared Drive)

NAME..... ADDRESS.....

Printed in U.S.A.